



Area
LES GRIMM
Machine Id
[LES GRIMM] 011 569145-11
Component
Hydraulic System
Fluid
CHEVRON RANDO HDZ 68 (--- GAL)

RECOMMENDATION

We recommend you service the filters on this component. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		MW0058527	MW0010810	---
Sample Date		Client Info		26 Jul 2023	10 Jan 2021	---
Machine Age	mths	Client Info		0	9329	---
Oil Age	mths	Client Info		0	192	---
Filter Age	mths	Client Info		3	192	---
Oil Changed		Client Info		Not Changd	Changed	---
Filter Changed		Client Info		Not Changd	Changed	---
Sample Status				ABNORMAL	ABNORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	3	<1	---
Chromium	ppm	ASTM D5185m	>10	<1	0	---
Nickel	ppm	ASTM D5185m	>10	0	0	---
Titanium	ppm	ASTM D5185m		0	0	---
Silver	ppm	ASTM D5185m		<1	<1	---
Aluminum	ppm	ASTM D5185m	>10	0	0	---
Lead	ppm	ASTM D5185m	>20	<1	<1	---
Copper	ppm	ASTM D5185m	>20	8	5	---
Tin	ppm	ASTM D5185m	>10	<1	<1	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

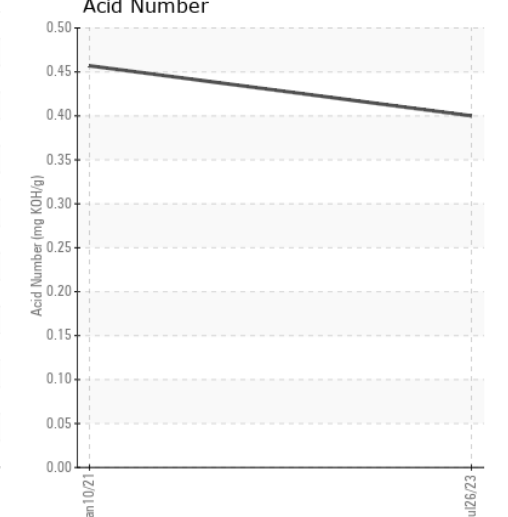
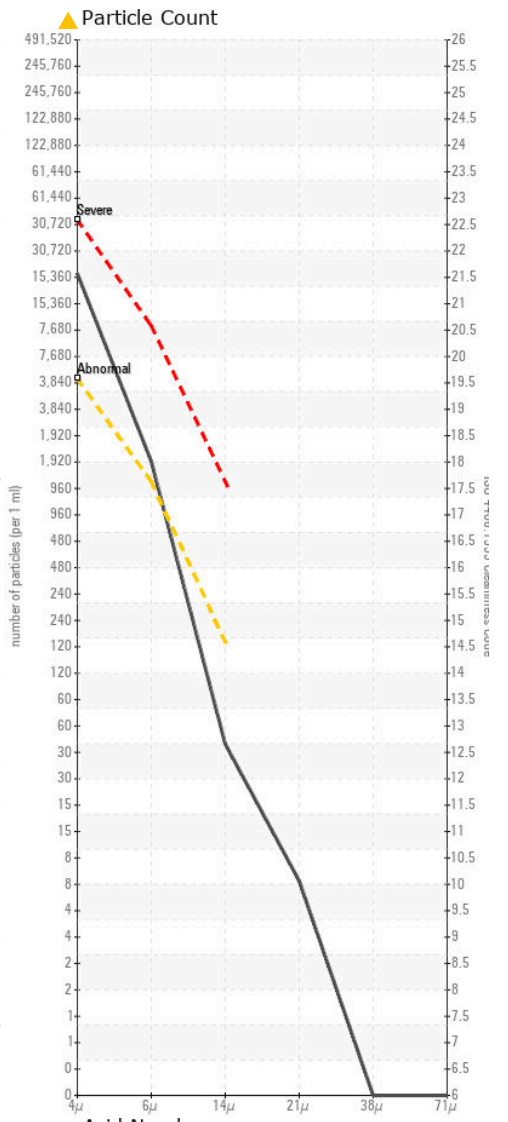
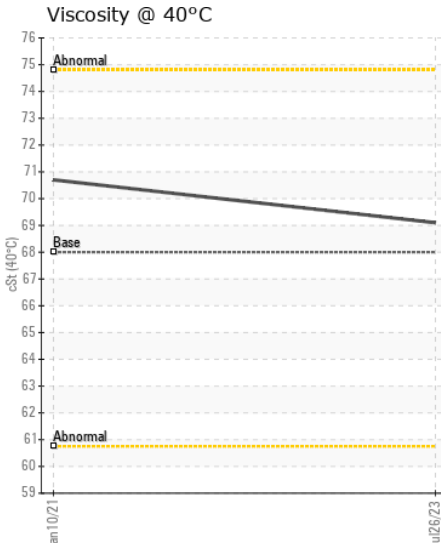
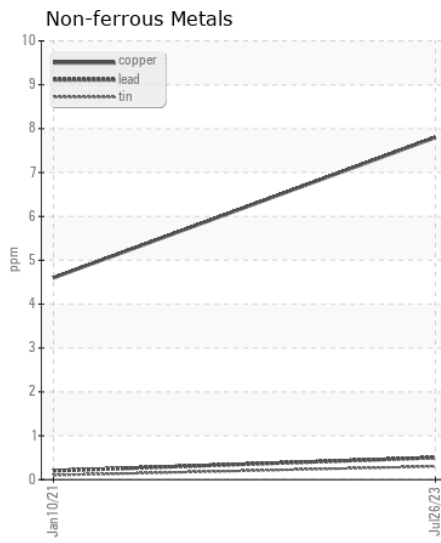
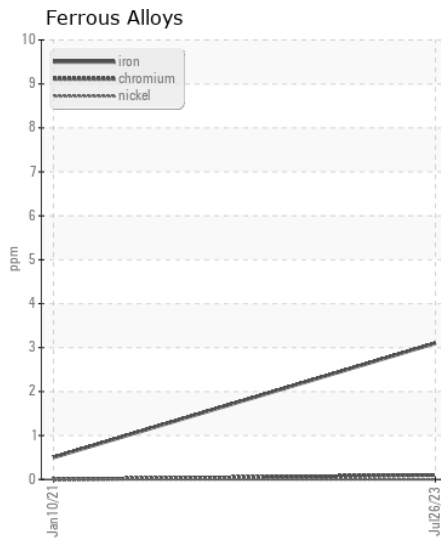
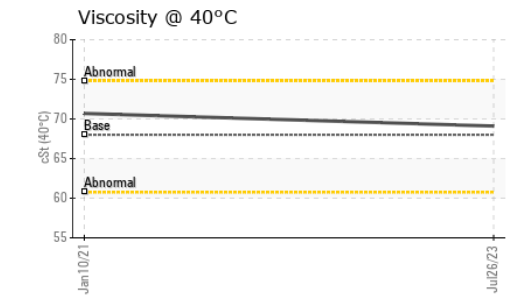
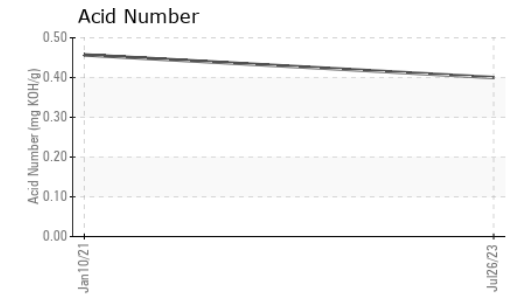
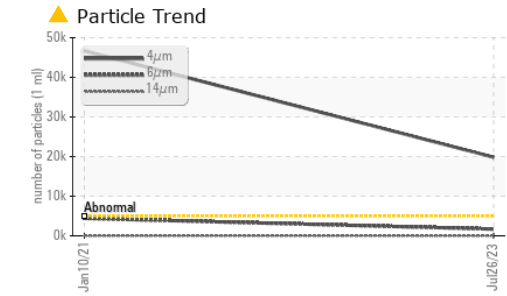
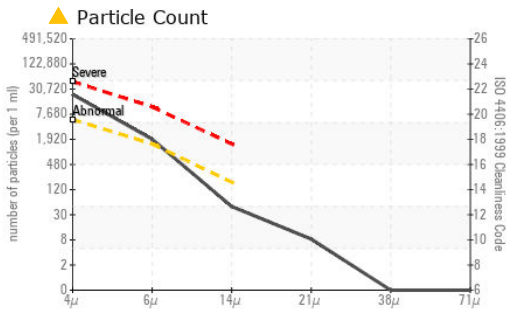
There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>15	<1	0	---
Potassium	ppm	ASTM D5185m	>20	<1	0	---
Water		WC Method	>0.05	NEG	NEG	---
Particles >4µm		ASTM D7647	>5000	▲ 19840	▲ 46683	---
Particles >6µm		ASTM D7647	>1300	● 1693	▲ 4409	---
Particles >14µm		ASTM D7647	>160	42	49	---
Particles >21µm		ASTM D7647	>40	7	7	---
Particles >38µm		ASTM D7647	>10	0	0	---
Particles >71µm		ASTM D7647	>3	0	0	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ 21/18/13	▲ 23/19/13	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.05	NEG	NEG	---

FLUID CONDITION

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

Sodium	ppm	ASTM D5185m		0	0	---
Boron	ppm	ASTM D5185m	0	4	5	---
Barium	ppm	ASTM D5185m	0	0	0	---
Molybdenum	ppm	ASTM D5185m	0	1	<1	---
Manganese	ppm	ASTM D5185m		0	<1	---
Magnesium	ppm	ASTM D5185m	0	4	<1	---
Calcium	ppm	ASTM D5185m	75	114	109	---
Phosphorus	ppm	ASTM D5185m	275	417	421	---
Zinc	ppm	ASTM D5185m	350	559	542	---
Sulfur	ppm	ASTM D5185m	550	2009	1315	---
Acid Number (AN)	mg KOH/g	ASTM D8045		0.40	0.457	---
Visc @ 40°C	cSt	ASTM D445	68.0	69.1	70.7	---



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW0058527 **Received** : 08 Aug 2023
Lab Number : 05919214 **Tested** : 09 Aug 2023
Unique Number : 10591128 **Diagnosed** : 09 Aug 2023 - Wes Davis
Test Package : MAR 2

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To discuss this sample report, contact Customer Service at 1-800-237-1369.
 * - Denotes test methods that are outside of the ISO 17025 scope of accreditation.
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)